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10/588,726	08/08/2006	Rowland G. Hunt	36-1996	1974

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NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER	
BAIG, ADNAN	

ART UNIT	PAPER NUMBER
2461	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOMAIL@nixonvan.com
clm@nixonvan.com

Office Action Summary	Application No.	Applicant(s)	
	10/588,726	HUNT ET AL.	
	Examiner	**Art Unit**	
	ADNAN BAIG	2461	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _14 February 2012_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) _73-94_ is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) _73-94_ is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 73-94 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 73-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (USP 5,878,224) in view of Na USP (6,792,099), and further in view of Margulis et al. USP (6,243,449).

Regarding Claim 73, Smith discloses an adaptive overload control method for controlling the amount of traffic offered by a plurality of network access points **(see Fig. 2, 206a-206b)** to a network access controller (**see Fig. 4**) for processing, the plurality of network access points **(see Fig. 2, 206a-206b)** being arranged under control of said network access controller (**see Fig. 4**) to provide said traffic with access to a communication network, the method enabling said network access controller(**see Fig.**

4) to externally control the amount of traffic which it processes by regulating the rate of offered traffic, the method comprising:

a) at the network access controller (**see Fig. 4, CPU 406**) using at least one programmed processor to: determines if an overload condition exists (**see Fig. 4, 410 & Col. 5 lines 4-10**) and if so,

(i) generating at least one global traffic constraint (**see Col. 5 lines 29-36**) to restrict the rate at which a network access point admits said traffic to the communications network (**see Col. 13 lines 6-36 e.g., the admission factor or the adapted gap interval can be calculated by the source (e.g., access point) or the server (e.g., controller). Furthermore the source (access point) calculates its new gap interval (e.g., per-line gap interval) based on its input transaction rate λ (e.g., estimate of current rate per line). See Col. 4 lines 61-67 e.g., aggregate offered traffic is determined by controller 500 for determining the reduction rate)**

(ii) communicating said at least one global traffic constraint to one or more of said plurality of network access points, (**see Col. 5 lines 4-36)**

(Referring to **Col. 5 lines 4-29**, Smith discloses the controller located in a network server establishes a target incoming workload by computing the offered load of sources (**e.g., aggregate offered traffic rate from plurality of access points**) from measurements of arriving messages.

(b) and at each respective network access point receiving said at least one global traffic constraint (**see Col. 5 lines 33-36**), using at least one programmed processor to:

(i) processing the received global traffic constraint (**see Col. 5 lines 35-36, i.e., update (processing)**) to determine a plurality of local gap interval constraint conditions for the respective network access point by:

determining a local call gap interval (Δt) to be imposed on traffic received by said respective network access point (**see Col. 5 lines 4-37 e.g., reduce transaction rate based on traffic rate & Col. 13 lines 5-15 e.g., generate a local call gap interval (Δt), Col. 2 lines 3-15**)

the local gap interval being determined by scaling the admission factor in dependence on the capacity of said respective network access point, (**see Col. 13 lines 9-15 e.g., "In response to a request from a server to reduce the number of new transactions transmitted to the server by the admission factor C, the source measures its input transaction rate λ" (e.g., capacity) "and calculates its new gap interval gnew" (e.g., local gap interval determined based on capacity of network access point)**)

(Smith further discloses the gap intervals are adaptively recalculated (**e.g., scaling**) based on the admission factor each time the SCP tells its source that its congestion level has changed, see Col. 13 lines 5-9)

While Smith discloses the network access point determining a local gap interval based on a global constraint sent from the server and in dependence on the capacity of the network access point, Smith does not expressly disclose the global constraint from the server to include a global gap interval. However the limitations would be rendered obvious in view of the teachings of Na USP (6,792,099).

Na discloses an overload constraint transmitted from a server (**see Fig. 2, 21-1**) to a network access point (**see Fig. 2, SSP 20**) which includes a global gap interval (**see Fig. 2 & Col. 4 lines 8-20 e.g., call gapping message containing a gap parameter including duration and interval of a call gapping**).

Na further discloses the network access point (**see Fig. 2, SSP 20**) determines whether to apply the call gapping operation by checking a detection point (**e.g., capacity of SSP20**), (**see Col. 4 lines 45-53**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the admission factor used for determining the local gap interval adaptively by scaling the admission factor in dependence on the capacity of the network access points in Smith to include the gap interval of Na who discloses an overload constraint transmitted from a server includes a global gap interval, because the teaching lies in Na to use the gap interval in relation to a triggering detection point.

The combination of Smith in view of Na does not expressly disclose the plurality of local gap interval constraint conditions to include determining an initial local gap interval ($\Delta t0$) which differs from the determined local gap interval (Δt), wherein each initial local gap interval ($\Delta t0$) is determined independently by each respective one of said plurality of network access points to be between zero and the local gap interval (Δt), for said respective network access point. Impose said local initial gap interval ($\Delta t0$) at each of said plurality of network access points directly responsive to receipt of a global gap condition and before further traffic is received at the respective network access point for admittance to said communications network. However the limitations would be rendered obvious in view of the teachings of Margulis et al. USP (6,243,449).

Referring to Fig. 1, Margulis illustrates a switch 16 is able to apply an initial gap interval which varies in a random manner (***see Fig. 2B, step 130***) between the plurality of switches 16 offering traffic to a network processor 26, (**see Col. 5 line 47 – Col. 6 lines 1-24**)

determining an initial local gap interval (Δt0) which differs from the determined local gap interval (Δt), **(see Col. 6 lines 15-24 e.g., randomizing the first gap time as initial gap time (e.g., Δt0), & Col. 5 lines 50-65 e.g., subsequent gap time (e.g., Δt)**)

wherein each initial local gap interval (Δt0) is determined independently by each respective one of said plurality of network access points to be between zero and the local gap interval (Δt), for said respective network access point, **(see Col. 6 lines 14-24 e.g., the switch applies random multiplier between 0 and 1 to the initial gap, subsequently the switch loads the actual gap time to the gap timer, thus initial local gap interval (Δt0) is determined independently be each switch**)

Impose said local initial gap interval (Δt0) at each of said plurality of network access points directly responsive to receipt of a global gap condition (**see Col. 5 lines 47-60 e.g., "NP immediately broadcasts a gap control message" (e.g., receipt of a global**

gap condition) "to all switches on the network". "After a network switch receives a call gap message for a TN from the NP, it loads the call gap specified in the message").

and before further traffic is received at the respective network access point for admittance to said communications network, (**see Col. 5 lines 55-60*,* "after a network switch receives a call gap message for a TN from the NP, it loads the call gap specified in the message into a call gap timer created for the TN and blocks <u>all</u> <u>calls</u> it receives" (e.g., (∆t0) is loaded into timer before further traffic is received**) **"which are destined to this TN" e.g., Thus, responsive to the gap control message from the NP, the standard initial call gap specified in the global constraint control message is automatically <u>loaded</u> into a call gap timer for the TN, and any further traffic destined for the respective TN is controlled during ∆t0).**

(**Referring to (Col. 6 lines 17-24), Margulis teaches by randomizing the first gap time in respect of a TN (terminating number) which is subject of gapping, network-wide call bursts at the end of each gap time are avoided (*i.e., avoid synchronized access attempts at the end of gapping period*). Furthermore the initial gap time is standard which is applied prior to receiving traffic for throttling the number of calls to the TN in order to avoid network congestion, see Col. 5 lines 47-55**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the global constraint condition sent to the network access points by the controller of Smith in view of Na to be implemented as the broadcast gap control message of Margulis who discloses determining an initial local gap interval (Δt0) which differs from the determined local gap interval (Δt), wherein each initial local gap interval (Δt0) is determined independently by each respective one of said plurality of network access points to be between zero and the local gap interval (Δt), for said respective network access point and Impose said local initial gap interval (Δt0) at each of said plurality of network access points directly responsive to receipt of a global gap condition and before further traffic is received at the respective network access point for admittance to said communications network, because the teaching lies in Margulis that network-wide call bursts can be avoided at the end of each gap time by randomizing the initial gap interval.

Regarding Claim 74, the combination of Smith in view of Na, and further in view of Margulis disclose a method as claimed in claim 73, wherein said traffic comprises communications call related traffic, (**Smith, See Col. 4 lines 33-40)**

Regarding Claim 75, the combination of Smith in view of Na, and further in view of Margulis disclose a method as claimed in claim 73, wherein the network access controller analyzes the rate at which traffic is offered to the network access controller to

determine said at least one global traffic constraint, (**Smith. See Col. 4 lines 15-24 & Col. 5 lines 9-11)**

Regarding Claim 76, the combination of Smith in view of Na, and further in view of Margulis disclose a method as claimed in claim 73, wherein the network access controller determines if an overload condition exists at the network access controller from the aggregate rate at which the traffic offered by all of said plurality of network access points to said network access controller, (**Smith, see Col. 4 lines 15-24**) and wherein said at least one global constraint is derived from the aggregate rate, (**Smith, see Fig. 1, Col. 13 lines 5-9 & Col. 2 lines 7-15**)

Regarding Claim 77, the combination of Smith in view of Na, and further in view of Margulis disclose a method as claimed in claim 73, wherein the network access controller by analyzes the rate at which traffic is rejected by the controller to determine said at least one global traffic constraint, (**Smith, see Col. 4 lines 15-24 & Col. 11 lines 15-30**)

Regarding Claim 78, the combination of Smith in view of Na, and further in view of Margulis disclose a method as claimed in claim 77, wherein the network access

controller (**Smith, see Fig. 4**) determines if an overload condition exists at the network access controller (**Smith, see Fig. 4**) from a reject rate comprising a rate at which the traffic offered by all of said plurality of network access points to said network access controller is rejected, **(Smith, see Col. 11 lines 15-30**) and wherein said at least one global constraint is derived from the reject rate, (**Margulis, see Col. 5 lines 47-51**).

Regarding Claim 79, the combination of Smith in view of Na, and further in view of Margulis disclose a method as claimed in claim 74, wherein said network access controller determines said at least one global traffic constraint by analyzing the rate at which off-hook messages are rejected by the access controller, (**Smith, see Col. 7 lines 55-60**)

Regarding Claim 80, the combination of Smith in view of Na, and further in view of Margulis disclose a method as claimed in claim 73, wherein the aggregate distribution of intervals (**Smith, see Fig. 1**) imposed by all of said network access points under the control of the network access controller is randomized at the onset of the local gap interval (Δt) constraint imposed by each said network access point, (**Margulis, see Col. 6 lines 15-25**)

Regarding Claim 81, the combination of Smith in view of Na, and further in view of Margulis disclose a method as claimed in claim 80, wherein said randomization is imposed individually by each network access point generating an initial local gap interval (Δt0), (**Margulis, see Col. 6 lines 14-24 e.g., the switch applies random multiplier between 0 and 1 to the initial gap, subsequently the switch loads the actual gap time to the gap timer, thus initial local gap interval (Δt0) is determined independently be each switch**)

whose duration is determined by a random process. (**Margulis, see Col. 6 lines 15-25 e.g., random multiplier applied to (Δt0)**).

Regarding Claim 82, the combination of Smith in view of Na, and further in view of Margulis disclose a method as claimed in claim 80, wherein said randomization is imposed individually by each network access point implementing said local gap interval (Δt) constraint, (**Margulis, see Col. 6 lines 14-24 e.g., the switch applies random multiplier between 0 and 1 to the initial gap, subsequently the switch loads the actual gap time to the gap timer, thus initial local gap interval (Δt0) is determined independently be each switch**)

immediately following processing of the global constraint information received, (**see Col. 5 lines 47-60 e.g., "NP immediately broadcasts a gap control message" (e.g.,**

receipt of a global gap condition) “to all switches on the network”. “After a network switch receives a call gap message for a TN from the NP, it loads the call gap specified in the message and performs the randomization”)

and wherein the time for the global constraint information processing to be completed following the network access controller generating said global constraint information varies for each of said plurality of network access points, (**Margulis, see Col. 6 lines 15-25**)

Regarding Claim 83, the combination of Smith in view of Na, and further in view of Margulis disclose a method as claimed in claim 73, wherein in said step of communicating said at least one global traffic constraint to one or more of said plurality of network access points (**Smith, see Col. 5 lines 33-36**) at least one global traffic constraint is multicast to one or more of said plurality of network access points, (**Margulis, see Col. 5 lines 47-50 e.g., broadcast gap control message**).

Regarding Claim 84, the combination of Smith in view of Na, and further in view of Margulis disclose a method as claimed in claim 73, wherein the initial gap interval ($\Delta t0$) (**Margulis, see Col. 5 lines 47-55**) is determined at each network access point using a random or pseudo-random technique, (**Margulis, see Col. 6 lines 15-25)**

Regarding Claim 85, the combination of Smith in view of Na, and further in view of Margulis disclose a method as claimed in claim 79, wherein said communications network is a VoIP network, and said traffic comprises call-related traffic, (**Smith, see Col. 4 lines 7-40**)

Regarding Claim 86, the combination of Smith in view of Na, and further in view of Margulis discloses a method as claimed in claim 79, wherein said network access controller is a Media Gateway Controller (**Smith, see Fig. 2, 200 Media gateway for VIP 202a-c**) and each of said plurality of network access points comprises a Media Gateway, (**Smith, see Col. 4 lines 15-24 i.e., media gateways of Fig. 2, 206a, 206b contain new transactions for processing between users 208 and VIP 202**).

Regarding Claim 87, the combination of Smith in view of Na, and further in view of Margulis discloses a method as claimed in claim 73, wherein a global traffic rate constraint is determined by said network access controller for an address, (**Margulis, see Col. 3 lines 45-64 e.g., each TN contains an address**).

Regarding Claim 88, the combination of Smith in view of Na, and further in view of Margulis discloses a method as claimed in claim 73, wherein the number of lines along which a network access point receives traffic for transmission across the communications network and a scalable gap interval determined by the network access controller based on the aggregate traffic offered to the network access controller by all contributing network access points are used to determine said local gap interval (Δt), (**Smith, see Col. 13 lines 6-36 e.g., the admission factor or the adapted gap interval can be calculated by the source (e.g., access point) or the server (e.g., controller). Furthermore the source (access point) calculates its new gap interval (e.g., per-line gap interval) based on its input transaction rate λ (e.g., estimate of current rate per line). See Col. 4 lines 61-67 e.g., aggregate offered traffic is determined by controller 500 for determining the reduction rate)**

Regarding Claim 89, the combination of Smith in view of Na, and further in view of Margulis discloses a method as claimed in claim 73, wherein a dial-plan is implemented by a network access point to make it unnecessary to send an off-hook condition message to the network access controller when a local gap interval (Δt) constraint is being imposed, (**Smith, see Col. 4 lines 25-40**)

Regarding Claim 90, the combination of Smith in view of Na, and further in view of Margulis discloses a method as claimed in claim 73, wherein each network access point determines the initial gap interval ($\Delta t0$) using a probabilistic method, (**Margulis, see Col. 6 lines 15-25**).

Regarding Claim 91, the combination of Smith in view of Na, and further in view of Margulis discloses a method as claimed in claim 73, wherein the initial gap interval ($\Delta t0$), if not zero, is determined by each network access point (**Margulis, see Col. 6 lines 15-22 e.g., random multiplier of 0 to 1**), such that all of the network access points initial gap intervals ($\Delta t0$), are uniformly distributed in the range from zero to the local gap interval ($\Delta t0$),) determined by each network access point, (**Margulis, see Col. 6 lines 15-25 e.g., each switch will perform the randomization process respectively**).

Regarding Claim 92, Smith discloses an adaptive overload control system for controlling the amount of traffic offered by a plurality of network access points **(see Fig. 2, 206a-206b)** to a network access controller (**see Fig. 4**) for processing, the plurality of network access points **(see Fig. 2, 206a-206b)** being arranged under control of said network access controller (**see Fig. 4**) to provide said traffic with access to a communication network, the method enabling said network access controller(**see Fig.**

4) to externally control the amount of traffic which it processes by regulating the rate of offered traffic, the system comprising:

a) at the network access controller (**see Fig. 4, CPU 406**):

(i) means for determines if an overload condition exists (**see Fig. 4, 410 & Col. 5 lines 4-10**) and if so,

(ii) means responsive to the determination that an overload condition exists for generating at least one global traffic constraint (**see Col. 5 lines 29-36**) to restrict the rate at which a network access point admits said traffic to the communications network (**see Col. 13 lines 6-36 e.g., the admission factor or the adapted gap interval can be calculated by the source (e.g., access point) or the server (e.g., controller). Furthermore the source (access point) calculates its new gap interval (e.g., per-line gap interval) based on its input transaction rate λ (e.g., estimate of current rate per line). See Col. 4 lines 61-67 e.g., aggregate offered traffic is determined by controller 500 for determining the reduction rate)**

(iii) means for communicating said at least one global traffic constraint to one or more of said plurality of network access points, (**see Col. 5 lines 4-36)**

(Referring to **Col. 5 lines 4-29**, Smith discloses the controller located in a network server establishes a target incoming workload by computing the offered load of sources (**e.g., aggregate offered traffic rate from plurality of access points**) from measurements of arriving messages.

(b) and at each respective network access point (i) means for receiving said at least one global traffic constraint (**see Col. 5 lines 33-36**),

(ii) means for processing the received global traffic constraint (**see Col. 5 lines 35-36, i.e., update (processing)**) to determine a plurality of local gap interval constraint conditions for the respective network access point by: determining a local call gap interval (Δt) to be imposed on traffic received by said respective network access point (**see Col. 5 lines 4-37 e.g., reduce transaction rate based on traffic rate & Col. 13 lines 5-15 e.g., generate a local call gap interval (Δt), Col. 2 lines 3-15**)

the local gap interval being determined by scaling the admission factor in dependence on the capacity of said respective network access point, (**see Col. 13 lines 9-15 e.g., "In response to a request from a server to reduce the number of new transactions transmitted to the server by the admission factor C, the source measures its input transaction rate λ" (e.g., capacity) "and calculates its new gap interval gnew" (e.g., local gap interval determined based on capacity of network access point)**)

(Smith further discloses the gap intervals are adaptively recalculated (**e.g., scaling**) based on the admission factor each time the SCP tells its source that its congestion level has changed, see Col. 13 lines 5-9)

While Smith discloses the network access point determining a local gap interval based on a global constraint sent from the server and in dependence on the capacity of the network access point, Smith does not expressly disclose the global constraint from the server to include a global gap interval. However the limitations would be rendered obvious in view of the teachings of Na USP (6,792,099).

Na discloses an overload constraint transmitted from a server (**see Fig. 2, 21-1**) to a network access point (**see Fig. 2, SSP 20**) which includes a global gap interval (**see Fig. 2 & Col. 4 lines 8-20 e.g., call gapping message containing a gap parameter including duration and interval of a call gapping**).

Na further discloses the network access point (**see Fig. 2, SSP 20**) determines whether to apply the call gapping operation by checking a detection point (**e.g., capacity of SSP20**), (**see Col. 4 lines 45-53**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the admission factor used for determining the local gap interval adaptively by scaling the admission factor in dependence on the capacity of the network access points in Smith to include the gap interval of Na who discloses an overload constraint transmitted from a server includes a global gap interval, because the teaching lies in Na to use the gap interval in relation to a triggering detection point.

Smith in view of Na does not expressly disclose the plurality of local gap interval constraint conditions to include determining an initial local gap interval ($\Delta t0$) which differs from the determined local gap interval (Δt), wherein each initial local gap interval ($\Delta t0$) is determined independently by each respective one of said plurality of network access points to be between zero and the local gap interval (Δt), for said respective network access point. Means for imposing said local initial gap interval ($\Delta t0$) at said respective network access points directly responsive to receipt of a global gap condition and before further traffic is received at the respective network access point for admittance to said communications network. However the limitations would be rendered obvious in view of the teachings of Margulis et al. USP (6,243,449).

Referring to Fig. 1, Margulis illustrates a switch 16 is able to apply an initial gap interval which varies in a random manner (***see Fig. 2B, step 130***) between the plurality of

switches 16 offering traffic to a network processor 26, (**see Col. 5 line 47 – Col. 6 lines 1-24**)

determining an initial local gap interval (Δt0) which differs from the determined local gap interval (Δt), (**see Col. 6 lines 15-24 e.g., randomizing the first gap time as initial gap time (e.g., Δt0), & Col. 5 lines 50-65 e.g., subsequent gap time (e.g., Δt)**)

wherein each initial local gap interval (Δt0) is determined independently by each respective one of said plurality of network access points to be between zero and the local gap interval (Δt), for said respective network access point, (**see Col. 6 lines 14-24 e.g., the switch applies random multiplier between 0 and 1 to the initial gap, subsequently the switch loads the actual gap time to the gap timer, thus initial local gap interval (Δt0) is determined independently be each switch**)

Impose said local initial gap interval (Δt0) at each of said plurality of network access points directly responsive to receipt of a global gap condition (**see Col. 5 lines 47-60 e.g., "NP immediately broadcasts a gap control message" (e.g., receipt of a global gap condition) "to all switches on the network". "After a network switch receives**

a call gap message for a TN from the NP, it loads the call gap specified in the message”).

and before further traffic is received at the respective network access point for admittance to said communications network, (**see Col. 5 lines 55-60*,* “after a network switch receives a call gap message for a TN from the NP, it loads the call gap specified in the message into a call gap timer created for the TN and blocks <u>all calls</u> it receives” (e.g., (∆t0) is loaded into timer before further traffic is received**) **“which are destined to this TN” e.g., Thus, responsive to the gap control message from the NP, the standard initial call gap specified in the global constraint control message is automatically <u>loaded</u> into a call gap timer for the TN, and any further traffic destined for the respective TN is controlled during ∆t0).**

(**Referring to (Col. 6 lines 17-24), Margulis teaches by randomizing the first gap time in respect of a TN (terminating number) which is subject of gapping, network-wide call bursts at the end of each gap time are avoided (*i.e., avoid synchronized access attempts at the end of gapping period*). Furthermore the initial gap time is standard which is applied prior to receiving traffic for throttling the number of calls to the TN in order to avoid network congestion, see Col. 5 lines 47-55**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the global constraint condition sent to the network access points by the controller of Smith in view of Na to be implemented as the broadcast gap control message of Margulis who discloses determining an initial local gap interval ($\Delta t0$) which differs from the determined local gap interval (Δt), wherein each initial local gap interval ($\Delta t0$) is determined independently by each respective one of said plurality of network access points to be between zero and the local gap interval (Δt), for said respective network access point and Impose said local initial gap interval ($\Delta t0$) at each of said plurality of network access points directly responsive to receipt of a global gap condition and before further traffic is received at the respective network access point for admittance to said communications network, because the teaching lies in Margulis that network-wide call bursts can be avoided at the end of each gap time by randomizing the initial gap interval.

4. Claims 93-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (USP 5,878,224) in view of Na USP (6,792,099), and further in view of Margulis et al. USP (6,243,449) as applied to claims 73 and 92 above, and further in view of Ginzboorg USP (6,018,519).

Regarding Claim 93, the combination of Smith in view of Margulis and further in view of Na discloses the method as in claim 73, as cited above.

The combination Smith in view of Margulis and further in view of Na do not disclose wherein the global gap interval is scaled in inverse proportion to the capacity of said respective network access point to determine the local gap interval. However the limitation would be rendered obvious in view of the teachings of Ginzboorg USP (6,018,519).

Ginzboorg discloses a global gap interval is scaled in inverse proportion to the capacity of incoming requests point to determine a local gap interval (**see Col. 8 lines 45-60**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the global gap interval determined and scaled to the capacity of network access points of Smith in view of Margulis and further in view of Na to be scaled in inverse proportion to the capacity of incoming requests to determine the local gap interval as disclosed by Ginzboorg for controlling overload conditions.

Regarding Claim 94, the combination of Smith in view of Margulis and further in view of Na discloses the system as in claim 92, as cited above.

The combination Smith in view of Margulis and further in view of Na do not disclose wherein the global gap interval is scaled in inverse proportion to the capacity of said respective network access point to determine the local gap interval. However the limitation would be rendered obvious in view of the teachings of Ginzboorg USP (6,018,519).

Ginzboorg discloses a global gap interval is scaled in inverse proportion to the capacity of incoming requests point to determine a local gap interval (**see Col. 8 lines 45-60**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the global gap interval determined and scaled to the capacity of network access points of Smith in view of Margulis and further in view of Na to be scaled in inverse proportion to the capacity of incoming requests to determine the local gap interval as disclosed by Ginzboorg for controlling overload conditions.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADNAN BAIG whose telephone number is (571)270-

7511. The examiner can normally be reached on Mon-Fri 7:30m-5:00pm eastern Every other Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/ADNAN BAIG/
Examiner, Art Unit 2461

/HUY D VU/

Supervisory Patent Examiner, Art Unit 2461